

Review of Summer 2018 EDRP/SCR Event Pricing Outcomes

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Agenda

- **Review of Scarcity Pricing rules**
- **2018 EDRP/SCR Events**
- **Pricing Outcomes**
- **Q&A**
- **Appendix**

Review of Scarcity Pricing Rules

- The expected load reduction from Emergency Demand Response Program (EDRP) resources and Special Case Resources (SCRs) is used as an input for calculating the Scarcity Reserve Requirement within each Scarcity Reserve Region
 - Scarcity Reserve Region is the collection of zones in which EDRP resources/SCRs were activated
- RTD and RTC procure additional 30-minute reserves during EDRP/SCR activations (i.e., scarcity reserves)
 - Amount of scarcity reserves procured (i.e., the Scarcity Reserve Requirement) is set equal to Expected EDRP/SCR MW less Available Operating Capacity* for the Load Zones included in a Scarcity Reserve Region, with a floor value of zero

* Available Operating Capacity is unscheduled energy production capability that could be provided by available resources in greater than 30 minutes and less than or equal to 60 minutes.

Review of Scarcity Pricing Rules, cont'd

- Is Scarcity Reserve Region the same as an existing locational reserve region? (i.e. NYCA, East, SENY, LI)
 - If yes → the 30-minute reserve demand curve for the existing region is adjusted in real-time to account for Scarcity Reserve Requirement, with demand curve price set to \$500/MW
 - If no → a Scarcity Reserve Demand Curve will be created for the Scarcity Reserve Region, with demand curve price set to \$500/MW
- NYCA 30-minute reserve demand curve values priced at less than \$500/MW are set to \$500/MW in real-time during any EDRP/SCR activation

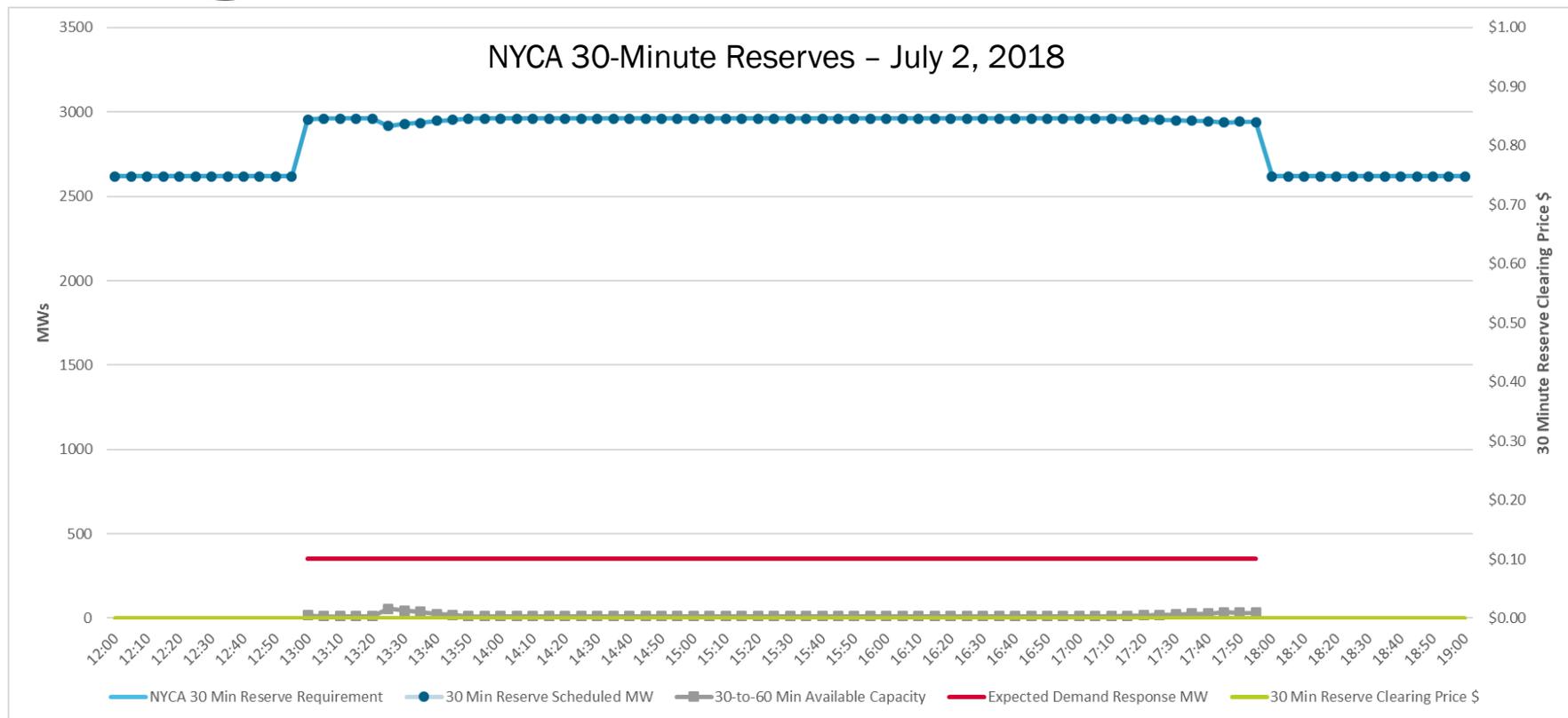
2018 EDRP/SCR event summary

	July 2, 2018	August 28, 2018	August 29, 2018
Hours Activated	13:00 – 17:59	12:00 – 17:59	12:00 – 17:59
Zones Activated	J (NYC)	J (NYC)	J (NYC)
Expected EDRP/SCR MW [A]	354	344	344
Average Available Operating Capacity (MW) [B]	17	16	18
Average Scarcity Reserve Requirement (MW) [A] - [B]	337	328	326
# of real-time intervals with scarcity pricing	0	13	2

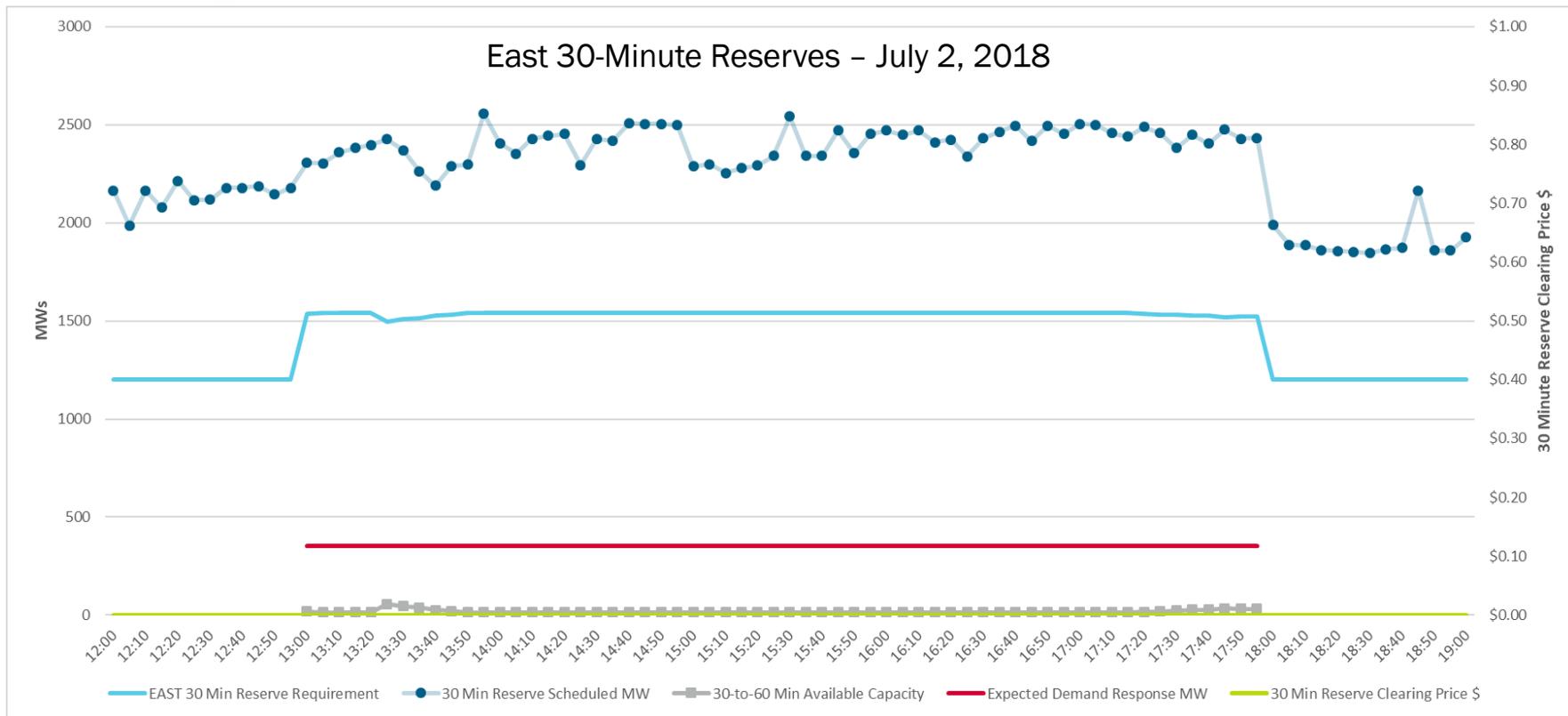
EDRP/SCR event on July 2, 2018

- **NYISO activated EDRP resources/SCRs on July 2 from 13:00-17:59 for Zone J transmission security**
 - 354 MW expected load reduction for the duration of the event
- **The average scarcity reserve requirement was 337 MW**
 - Average scarcity reserve requirement (MW) = Expected EDRP/SCR MW – average Available Operating Capacity MW = (354 MW – 17 MW) = 337 MW
 - The scarcity reserve requirement is added to the NYCA, East, and SENY requirements, and a Zone J scarcity reserve region is established
- **No real-time pricing intervals had \$500 clearing prices for 30-minute reserves**

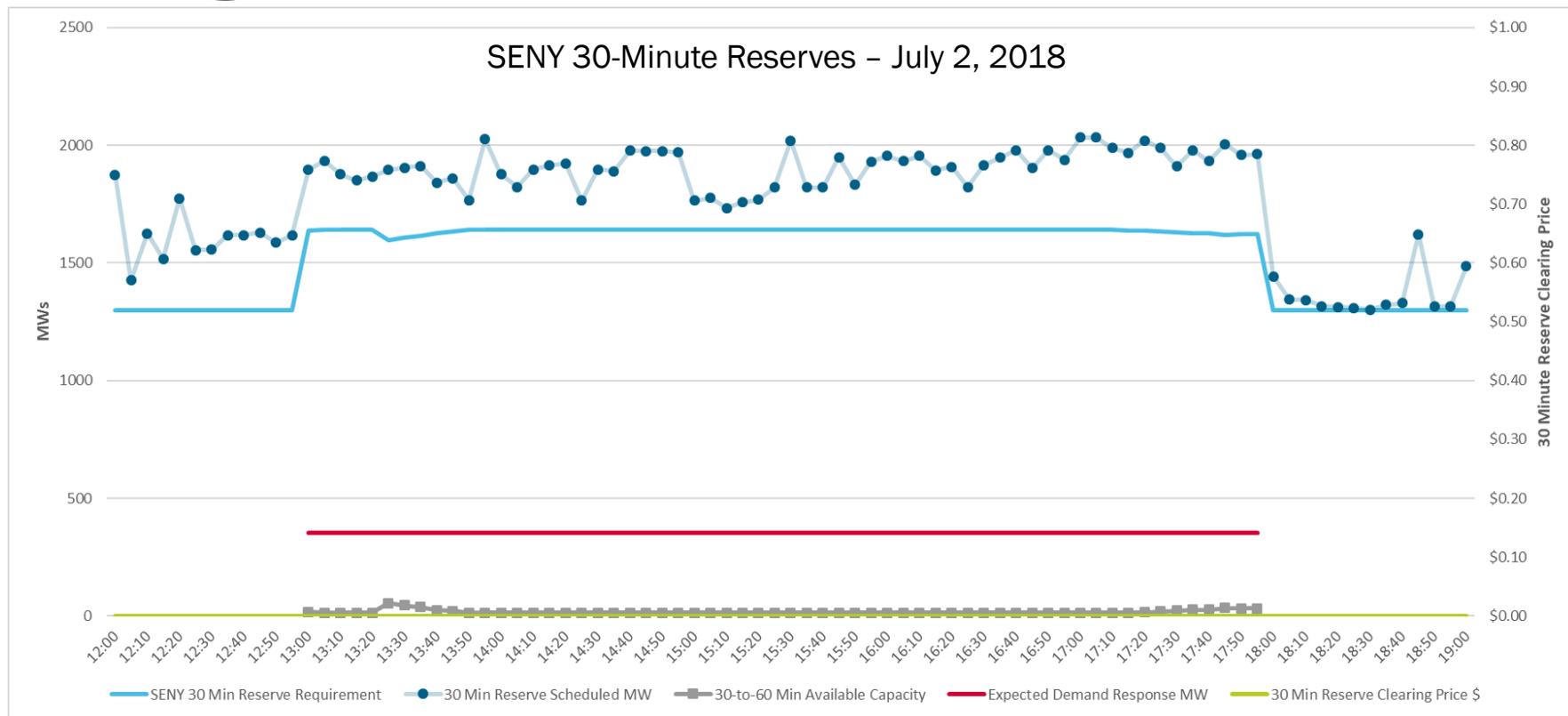
Pricing Outcomes – NYCA 30-Minute Reserves



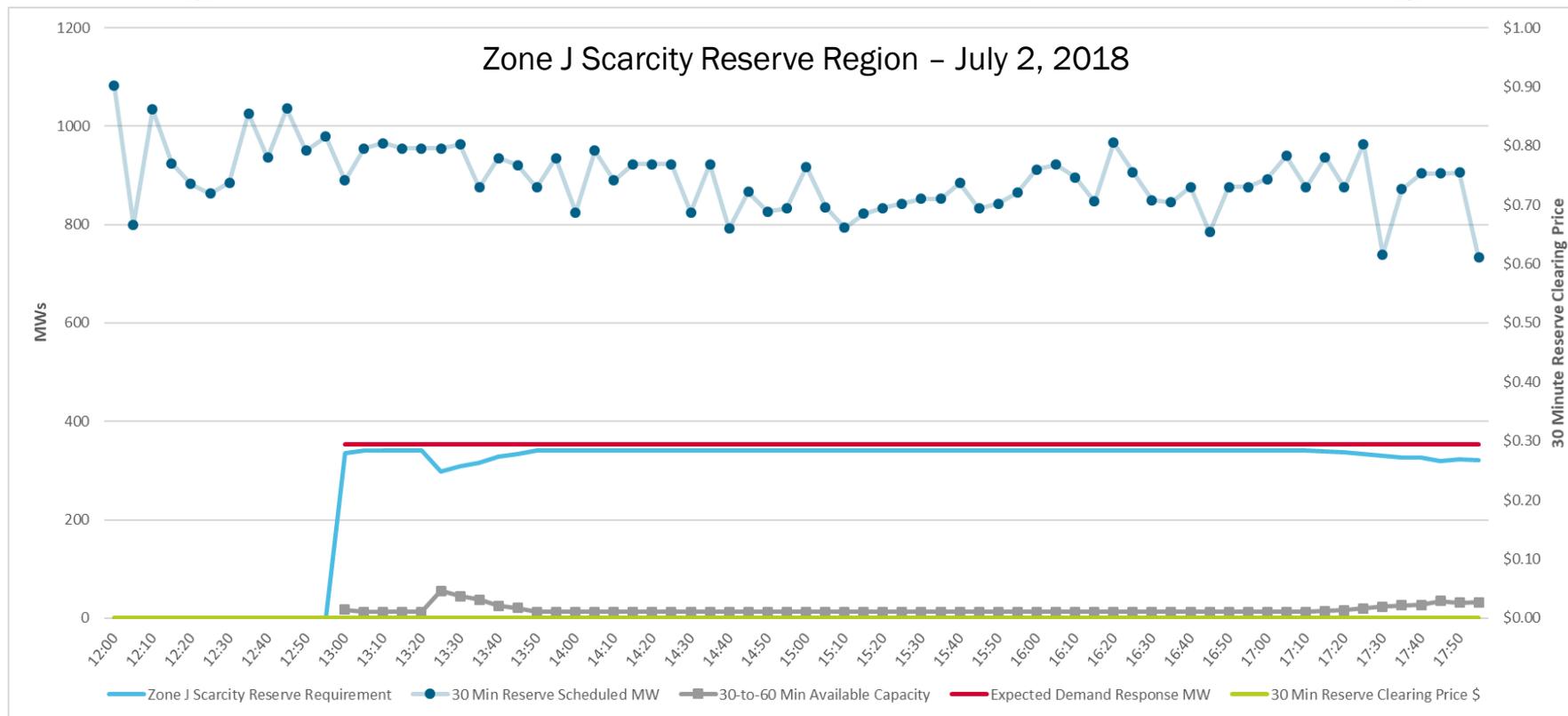
Pricing Outcomes – East 30-Minute Reserves



Pricing Outcomes – SENY 30-Minute Reserves



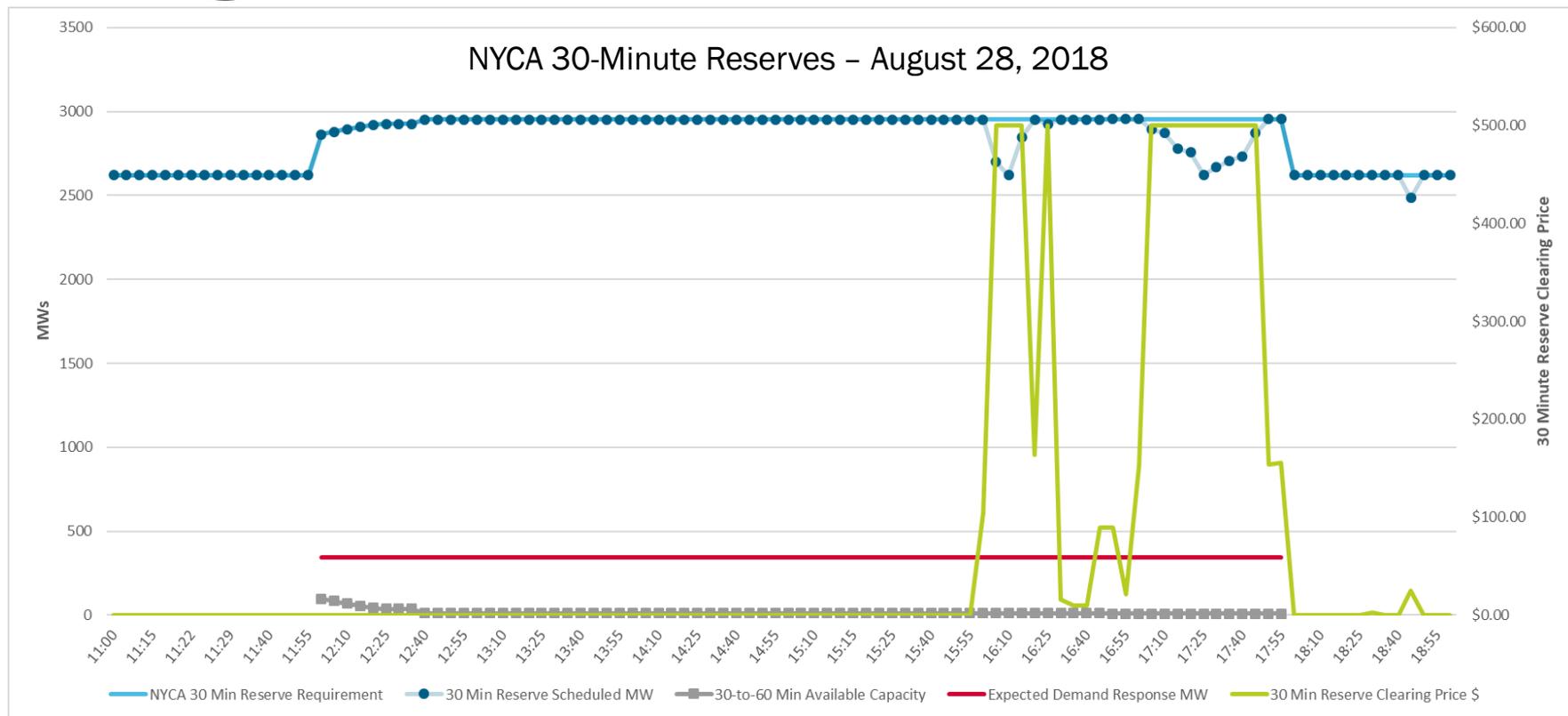
Pricing Outcomes – Zone J Scarcity Reserve Region



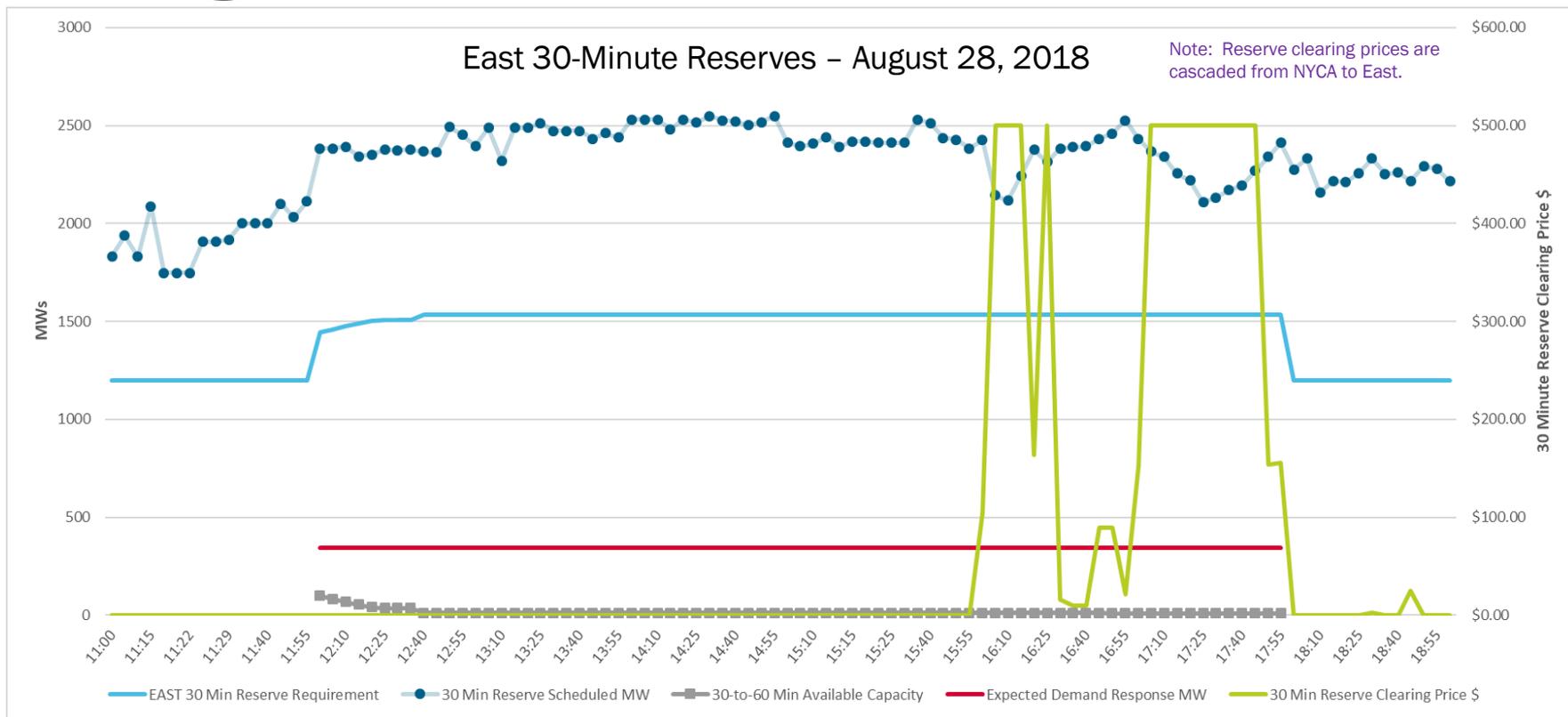
EDRP/SCR event on August 28, 2018

- **NYISO activated EDRP resources/SCRs on August 28 from 12:00-17:59 for Zone J transmission security**
 - 344 MW expected load reduction for the duration of the event
- **The average scarcity reserve requirement was 328 MW**
 - Average scarcity reserve requirement (MW) = Expected EDRP/SCR MW – average Available Operating Capacity MW = (344 MW – 16 MW) = 328 MW
 - The scarcity reserve requirement is added to the NYCA, East, and SENY requirements, and a Zone J scarcity reserve region is established
- **13 real-time pricing intervals had \$500 clearing prices for 30-minute reserves**
 - HB 16: 4 intervals
 - HB 17: 9 intervals

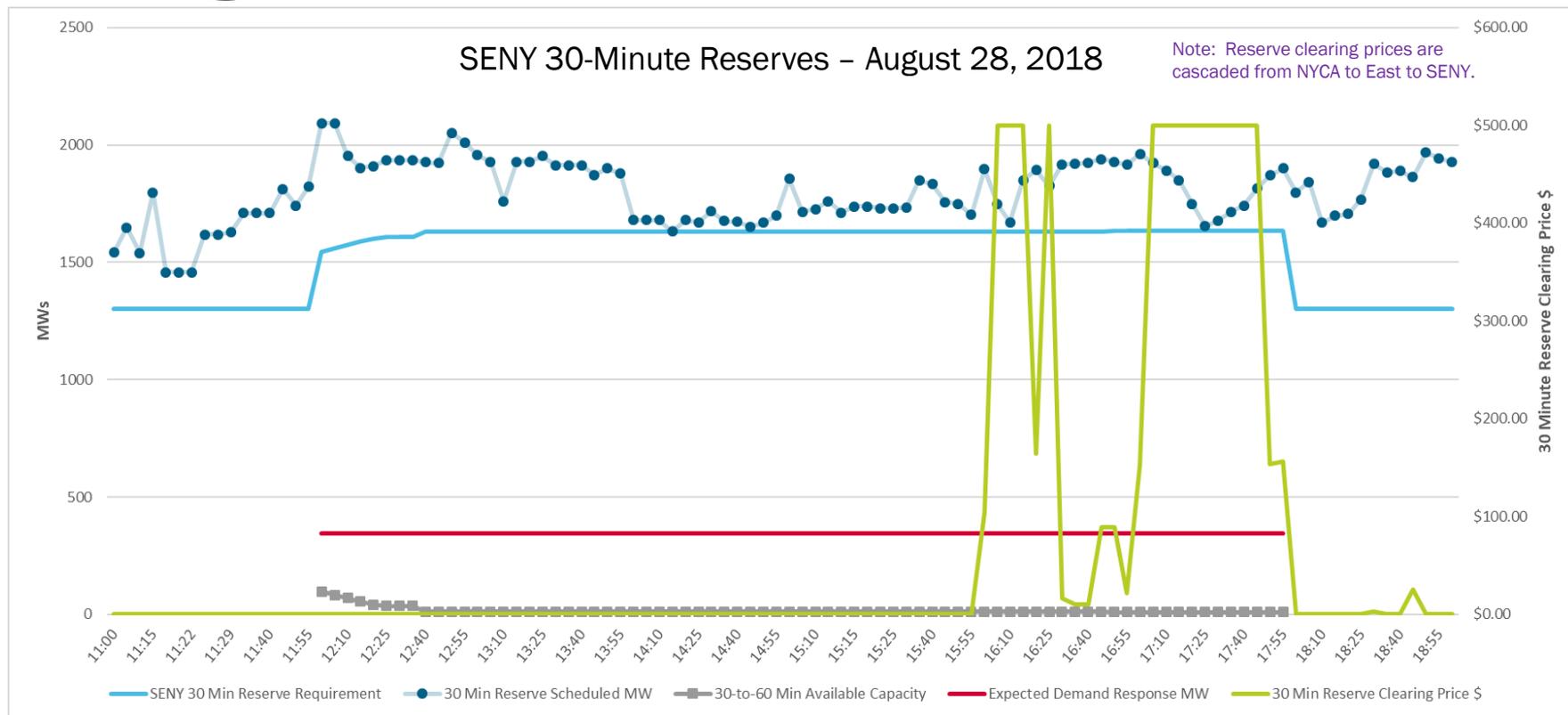
Pricing Outcomes – NYCA 30-Minute Reserves



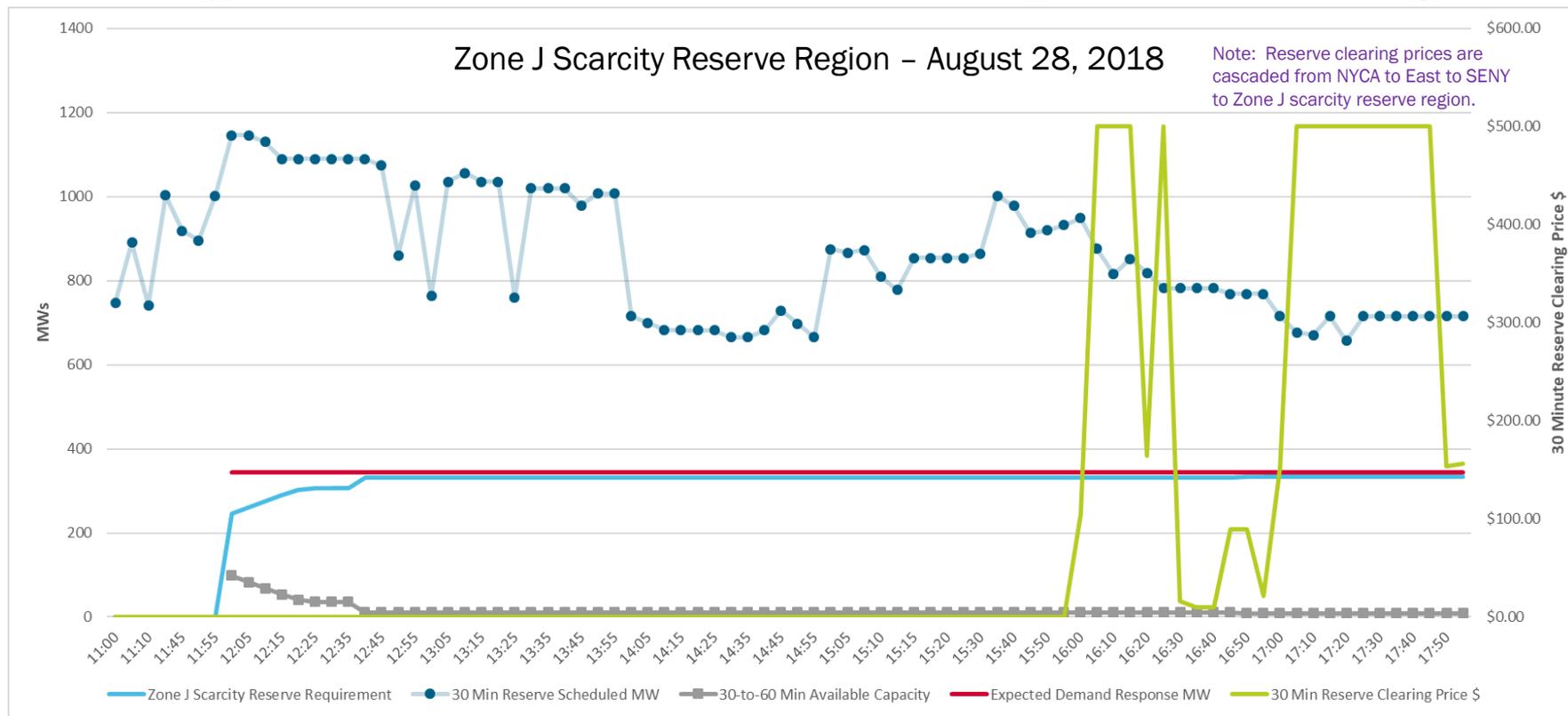
Pricing Outcomes – East 30-Minute Reserves



Pricing Outcomes – SENY 30-Minute Reserves



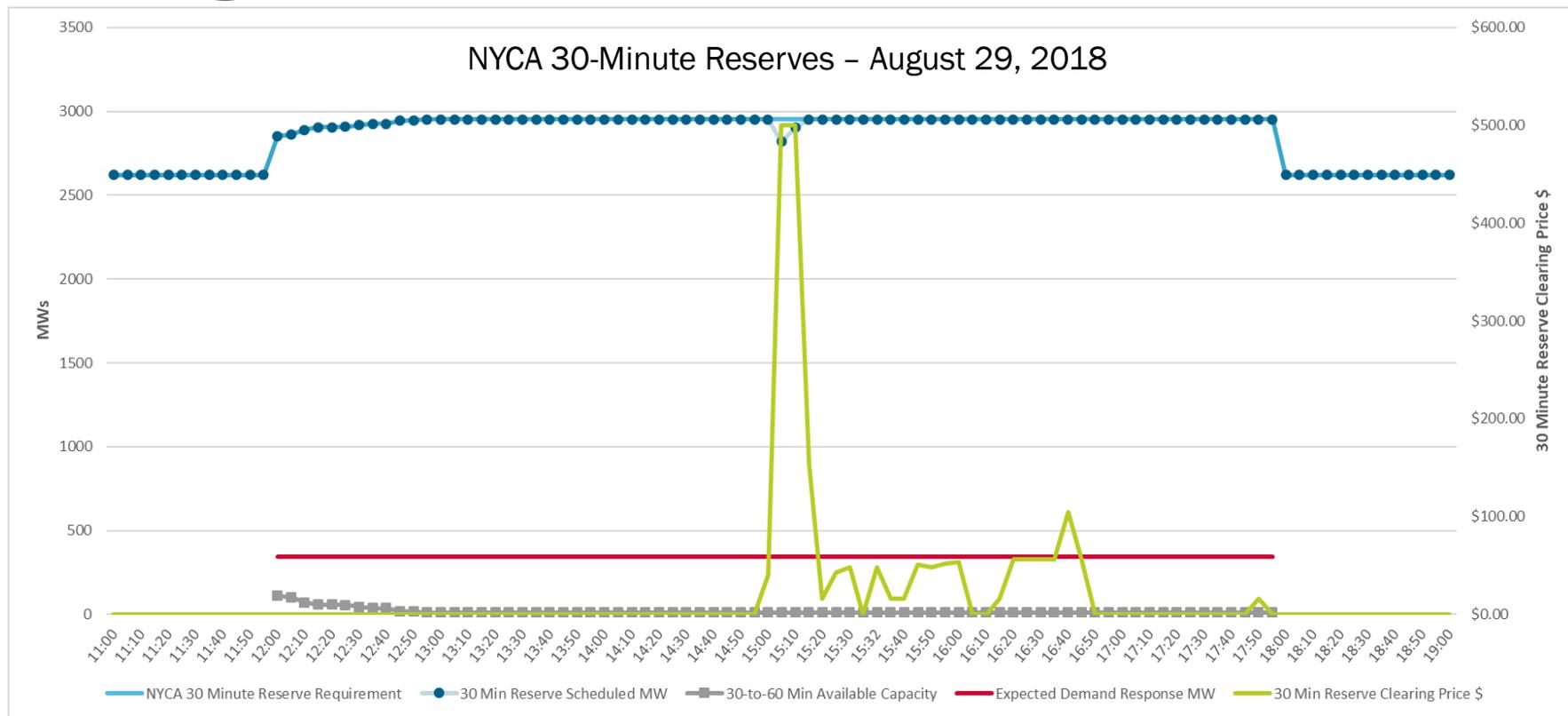
Pricing Outcomes – Zone J Scarcity Reserve Region



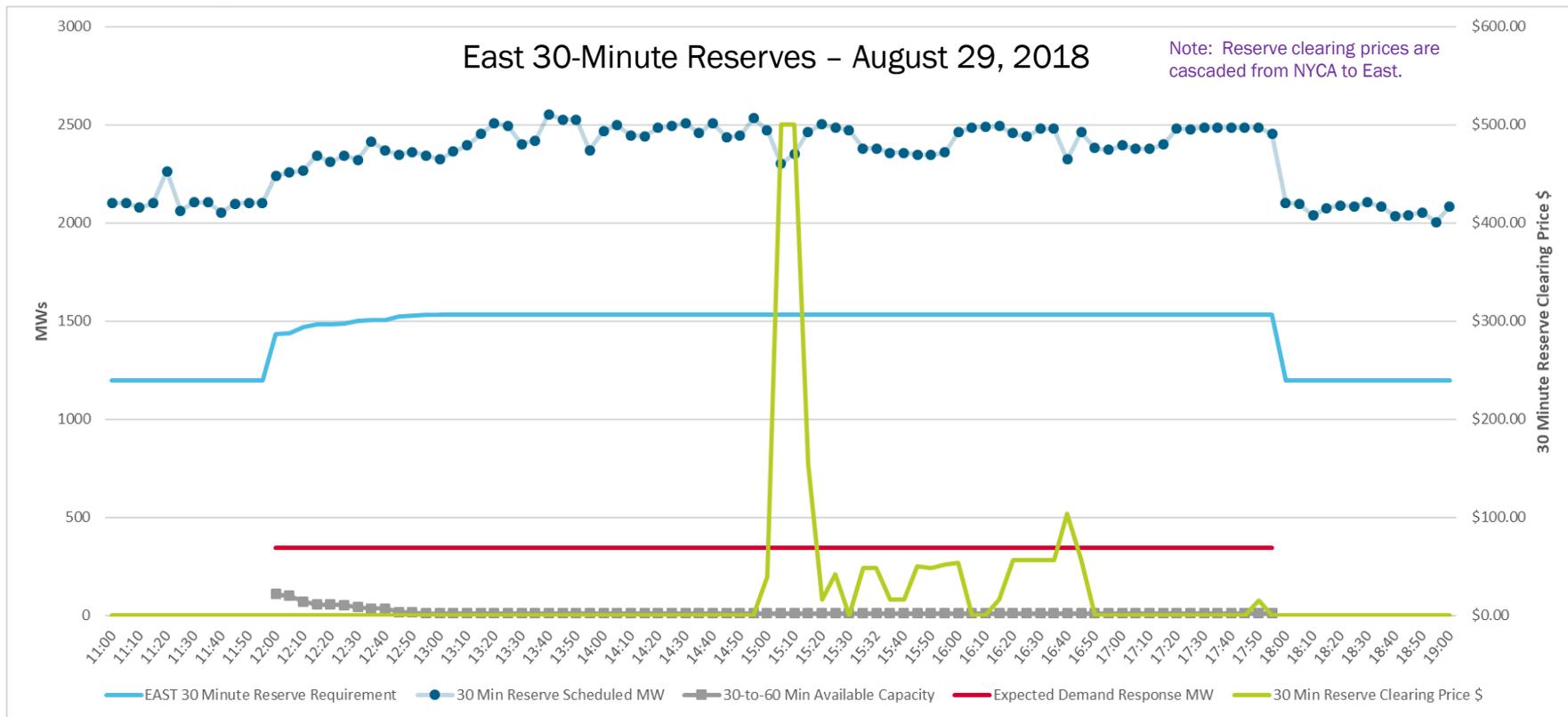
EDRP/SCR event on August 29, 2018

- **NYISO activated EDRP resources/SCRs on August 29 from 12:00-17:59 for Zone J transmission security**
 - 344 MW expected load reduction for the duration of the event
- **The average scarcity reserve requirement was 326 MW**
 - Average scarcity reserve requirement (MW) = Expected EDRP/SCR MW – average Available Operating Capacity MW = (344 MW – 18 MW) = 326 MW
 - The scarcity reserve requirement is added to the NYCA, East, and SENY requirements, and a Zone J scarcity reserve region is established
- **2 real-time pricing intervals had \$500 clearing price for 30-minute reserves**
 - HB 15: 2 intervals

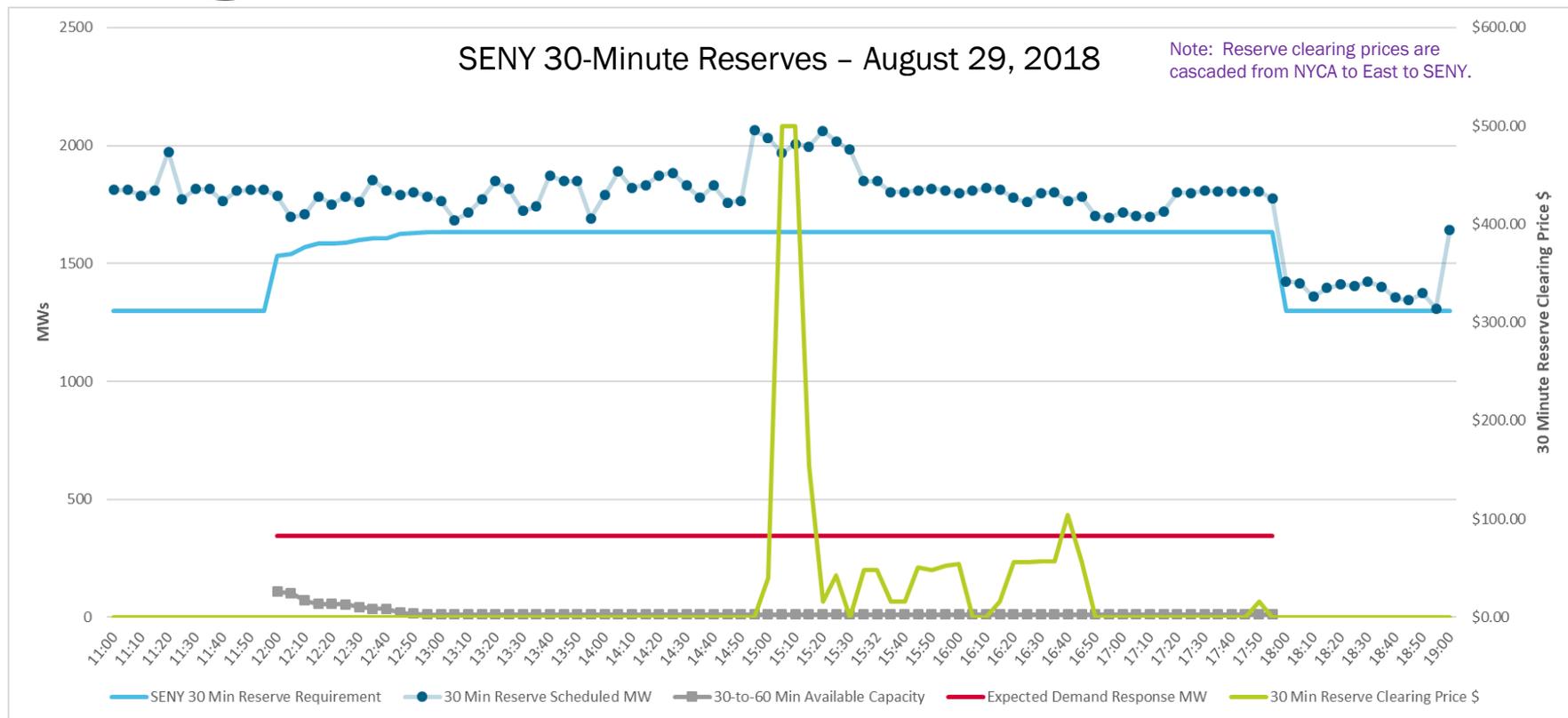
Pricing Outcomes – NYCA 30-Minute Reserves



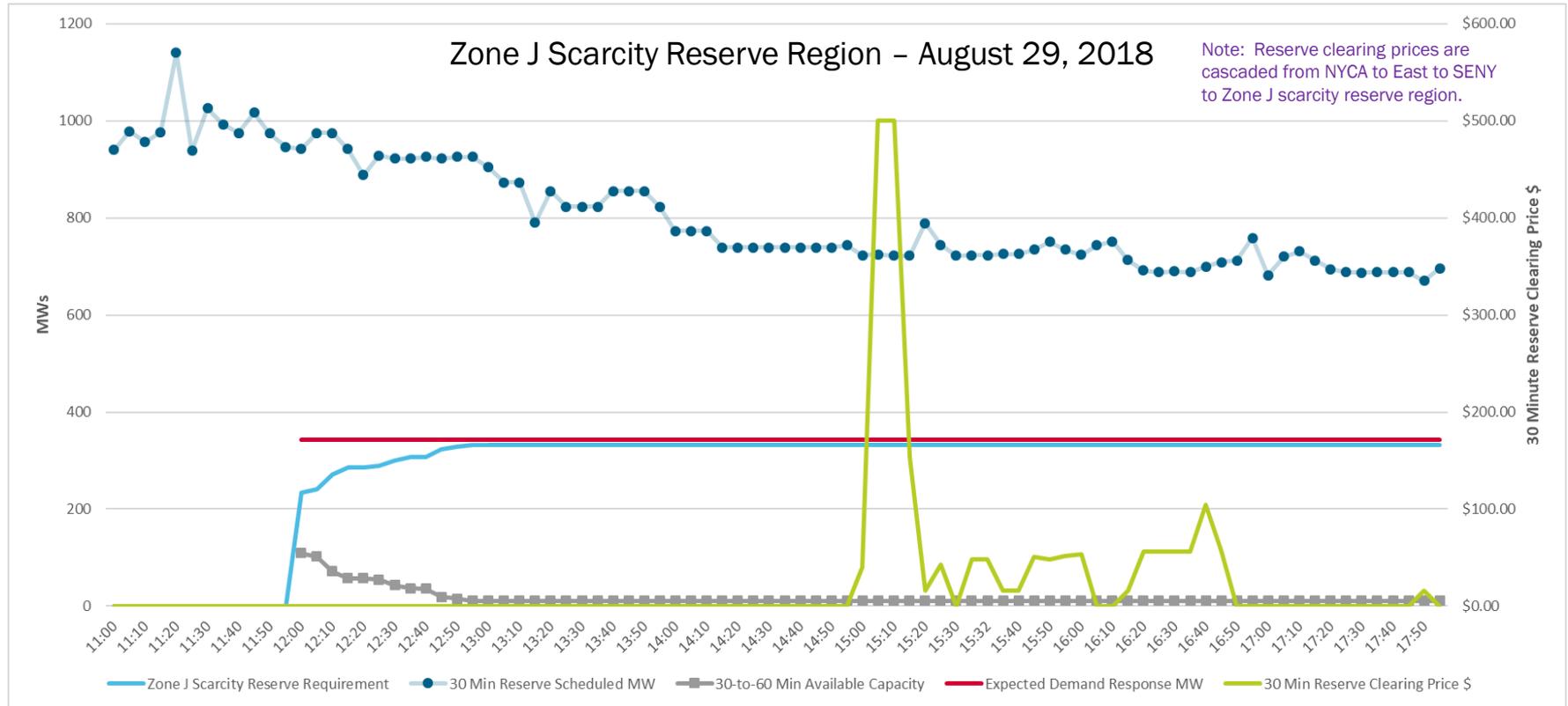
Pricing Outcomes – East 30-Minute Reserves



Pricing Outcomes – SENY 30-Minute Reserves



Pricing Outcomes – Zone J Scarcity Reserve Region



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- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

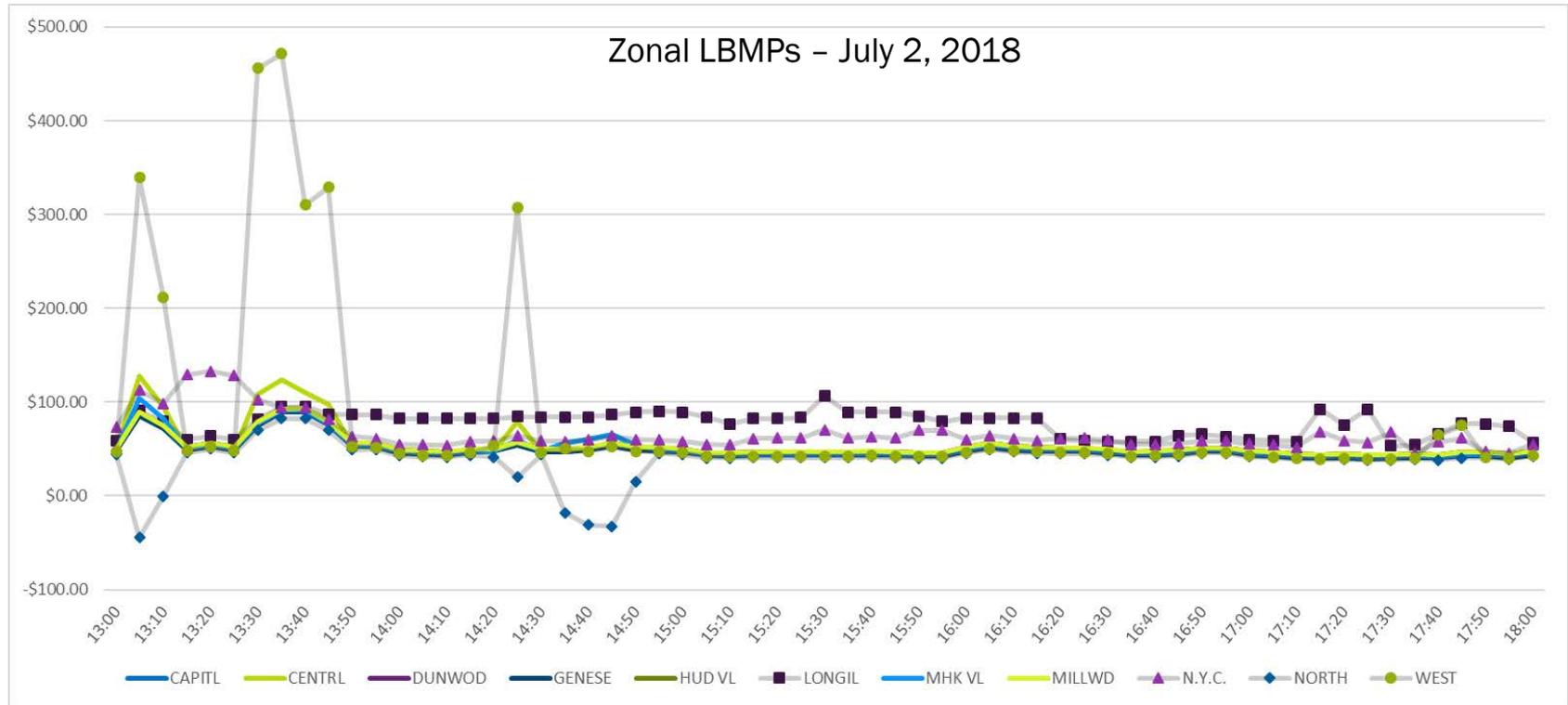


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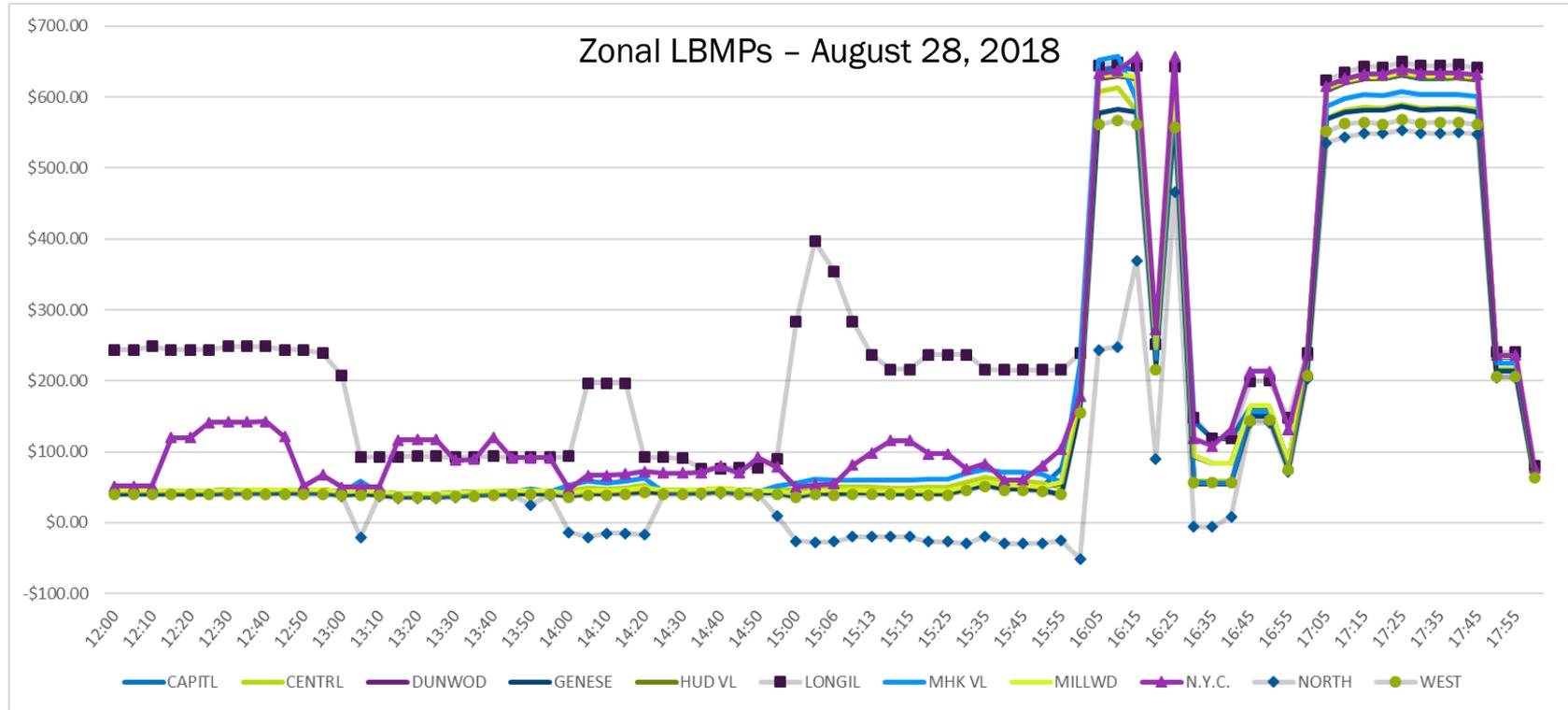
Questions?

Appendix

Pricing Outcomes – Zonal LBMPs



Pricing Outcomes – Zonal LBMPs



Pricing Outcomes – Zonal LBMPs

